What is claimed is:

1. A method of depositing a low dielectric constant film on a substrate, comprising:

providing a gas mixture to a deposition chamber, wherein the gas mixture comprises a silicon source, a carbon source, and $NR_1R_2R_3$ into a chamber, wherein R_1, R_2, and R_3 are selected from the group consisting of alkyl and phenyl groups;

and reacting the gas mixture while applying radio frequency (RF) power to form a nitrogen-containing silicon carbide layer on the substrate in the chamber.

2. The method of claim 1, wherein an organosilicon compound having the general formula $Si_xC_yH_z$ comprises the silicon source and the carbon source, wherein x has a range of 1 to 2, y has a range of 1 to 6, and z has a range of 4 to 18.

3. The method of claim 2, wherein the organosilicon compound is selected from the group of methylsilane ($SiCH_6$), dimethylsilane (SiC_2H_8), trimethylsilane (SiC_3H_{10}), tetramethylsilane (SiC_4H_{12}), diethylsilane (SiC_4H_{12}), and combinations thereof.

4. The method of claim 1, wherein the silicon source is silane and the carbon source is methane.

5. The method of claim 1, wherein the $NR_1R_2R_3$ is trimethylamine.

6. The method of claim 1, wherein the gas mixture further comprises an oxygen source.

7. The method of claim 6, wherein the oxygen source is selected from the group of oxygen, carbon dioxide, and combinations thereof.

8. The method of claim 6, wherein the oxygen source is carbon dioxide.

9. The method of claim 1, wherein the gas mixture further comprises an inert gas.

10. The method of claim 9, wherein the inert gas is selected from the group of helium (He), argon (Ar), neon (Ne), and combinations thereof.

11. The method of claim 1, wherein the ratio of the silicon source to the $NR_1R_2R_3$ in the gas mixture is from about 1:1 to about 1:100.

12. The method of claim 1, wherein the substrate is heated to a temperature from about 150°C to about 450°C.

13. The method of claim 1, wherein the deposition chamber is maintained at a pressure from about 1 torr to about 15 torr.

14. The method of claim 1, wherein the silicon source and the carbon source are provided to the deposition chamber at a combined rate from about 10 sccm to about 2,000 sccm.

15. The method of claim 1, wherein the $NR_1R_2R_3$ is provided to the deposition chamber at a flow rate from about 50 sccm to about 10,000 sccm.

16. The method of claim 1, wherein the radio frequency power comprises single or mixed radio frequencies.

17. The method of claim 16, wherein the radio frequency power is from about 1 watt/cm^2 to about 10 watts/cm^2.

18. The method of claim 1, wherein the nitrogen-containing silicon carbide layer has a dielectric constant less than about 5.5.

19. The method of claim 1, wherein the nitrogen-containing silicon carbide layer is an anti-reflective coating (ARC) at wavelengths less than about 250 nm.

20. A computer storage medium containing a software routine that, when executed, causes a general purpose computer to control a deposition chamber using a layer deposition method, comprising:

providing a gas mixture to the deposition chamber, wherein the gas mixture comprises a silicon source, a carbon source, and $NR_1R_2R_3$, wherein R_1,R_2, and R_3 are selected from the group consisting of alkyl and phenyl groups; and

reacting the gas mixture while applying radio frequency (RF) power to form a nitrogen-containing silicon carbide layer on a substrate in the chamber.

21. The computer storage medium of claim 20, wherein an organosilicon compound having the general formula $Si_xC_yH_z$ comprises the silicon source and the carbon source, wherein x has a range of 1 to 2, y has a range of 1 to 6, and z has a range of 4 to 18.

22. The computer storage medium of claim 21, wherein the organosilicon compound is selected from the group of methylsilane ($SiCH_6$), dimethylsilane (SiC_2H_8), trimethylsilane (SiC_3H_{10}), tetramethylsilane (SiC_4H_{12}), diethylsilane (SiC_4H_{12}), and combinations thereof.

23. The computer storage medium of claim 20, wherein the silicon source is silane and the carbon source is methane.

24. The computer storage medium of claim 20, wherein the $NR_1R_2R_3$ is trimethylamine.

25. The computer storage medium of claim 20, wherein the gas mixture further comprises an oxygen source.

26. The computer storage medium of claim 20, wherein the oxygen source is selected from the group of oxygen, carbon dioxide, and combinations thereof.

27. The computer storage medium of claim 25, wherein the oxygen source is carbon dioxide.

28. The computer storage medium of claim 20, wherein the gas mixture further comprises an inert gas.

29. The computer storage medium of claim 28, wherein the inert gas is selected from the group of helium (He), argon (Ar), neon (Ne), and combinations thereof.

30. The computer storage medium of claim 20, wherein the ratio of the silicon source to $NR_1R_2R_3$ in the gas mixture is from about 1:1 to about 1:100.

31. The computer storage medium of claim 20, wherein the substrate is heated to a temperature from about 150°C to about 450°C.

32. The computer storage medium of claim 20, wherein the deposition chamber is maintained at a pressure from about 1 torr to about 15 torr.

33. The computer storage medium of claim 20, wherein the silicon source and the carbon source are provided to the deposition chamber at a flow rate from about 10 sccm to about 2,000 sccm.

34. The computer storage medium of claim 20, wherein the $NR_1R_2R_3$ is provided to the deposition chamber at a flow rate from about 50 sccm to about 10,000 sccm.

35. The computer storage medium of claim 20, wherein the radio frequency power comprises single or mixed radio frequencies.

36. The computer storage medium of claim 35, wherein the radio frequency power is from about 1 watt/cm^2 to about 10 watts/cm^2.

37. The computer storage medium of claim 20, wherein the nitrogen-containing silicon carbide layer has a dielectric constant less than about 5.5.

38. The computer storage medium of claim 20, wherein the nitrogen-containing silicon carbide layer is an anti-reflective coating (ARC) at wavelengths less than about 250 nm.

39. A low dielectric constant film formed by a method comprising:

providing a gas mixture to a deposition chamber, wherein the gas mixture comprises a silicon source, a carbon source, and $NR_1R_2R_3$, wherein R_1,R_2, and R_3 are selected from the group consisting of alkyl and phenyl groups; and

reacting the gas mixture while applying radio frequency power to form a nitrogen-containing silicon carbide layer on a substrate in the deposition chamber.